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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,845	06/01/2004	Jeng-Yih WU	NAUP0563USA	3844
27765	7590	08/18/2006	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			REHM, ADAM C	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 08/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/709,845	Applicant(s) WU ET AL.	
	Examiner Adam C. Rehm	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,7-11 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-11 and 13-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: typographical error: "having a optical axis". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 7, 9, 10, 17 and 18 are rejected under 35 U.S.C. 102(b) as being unpatentable over MASUMOTO (US 5,418,583) and O'BRIEN ET AL. (WO 03/064919). MASUMOTO discloses a projector (Column 1, Lines 6-14) comprising:

- A light source (1);
- A first lens array positioned on a side of the light source (4, Fig. 16);
- An invisible-light/UV/IR cut filter being non-parallel with the first array (105);
- A second lens array positioned on the same side of the light source as the first lens array (5); and
- A light source housing/reflector (3).

3. MASUMOTO discloses the claimed invention, but does not disclose an invisible-light/UV/IP cut filter having an included angle of about 11-45 degrees. However, O'BRIEN teaches arranging an IR filter at an angle of about 11 to 45 degrees/angled

from an optical axis (Fig. 2) for the purpose of preventing reflection of light back to the light source and thus avoiding damage to the light source (Page 4, Paragraph 3). It would have been obvious to one of ordinary skill in the art at the time of invention to modify MASUMOTO and use the angled IR filter as taught by O'BRIEN in order to avoid the reflection of damaging light back to the light source.

4. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over MASUMOTO (US 5,418,583) as applied to claim 1 above, and further in view of applicant's admitted prior art. MASUMOTO discloses the claimed invention, but does not specifically disclose a PS converter or a high-pressure mercury lamp light source. However, applicant admits that prior art projectors use PS converters for polarizing light beams (Page 2, Lines 9-10, Fig. 1) and high-pressure mercury lamps (Page 2, Lines 11-14), which are commonly used in projectors due to well-known properties including high lumens, long life, color constancy and low cost. It would have been obvious to one of ordinary skill in the art at the time of invention to modify MASUMOTO and use the PS converter and mercury lamp as taught by applicant in order to polarize light beams from an efficient light source.

5. Claims 11, 13-16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over MASUMOTO (US 5,418,583) and O'BRIEN ET AL. (WO 03/064919). MASUMOTO discloses a projector (Column 1, Lines 6-14) comprising a light source (1); a first lens array positioned on a side of the light source (4, Fig. 16); a second lens array positioned on the same side of the light source as the first lens array (5); an invisible-light/UV/IR cut filter being non-parallel with the first array and between the first and

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second arrays (105); and a light source housing/reflector (3). MASUMOTO does not disclose an invisible-light/UV/IR cut filter positioned at an acute angle to the first array. However, O'BRIEN teaches arranging an IR filter at an angle of about 11 to 45 degrees (Fig. 2) for the purpose of preventing reflection of light back to the light source and thus avoiding damage to the light source (Page 4, Paragraph 3). It would have been obvious to one of ordinary skill in the art at the time of invention to modify MASUMOTO and use the angled IR filter as taught by O'BRIEN in order to avoid the reflection of damaging light back to the light source.

Response to Amendment

6. Applicant's amendment has been received.

Response to Arguments

7. Applicant's arguments with respect to the claims have been considered but are not persuasive.

8. Applicant argues that MASUMOTO and O'BRIEN do not disclose a filter installed at a position further away from the light source or that do not reflect light into the reflective housing. However, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. Applicant argues that a filter included about 45-79 degrees from a lens array distinguishes the claimed invention. However, the critical aspect of the concept, i.e. angling a filter to strategically direct reflected radiation, is taught via O'BRIEN (Fig. 2;

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Page 4, Paragraph 3). Determining an ideal/specific angle of the filter is the work of a skilled engineer and not that of an inventor. Moreover, Applicant has not disclosed that the specifically claimed angle solves any stated problem or is for any particular purpose and it appears as though the claimed invention would perform equally well with the angled filter of O'BRIEN.

Conclusion/Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACR 8/10/2006



**THOMAS M. SEMBER
PRIMARY EXAMINER**